	Application No.	Applicant(s)
Notice of Allowability	09/552,589	OCHIAI ET AL.
	Examiner	Art Unit	
	Tom Gyorfi	2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *them amendment filed 12/27/05*.

2. ☒ The allowed claim(s) is/are *1,3,5,10-28,33,37-57 and 61-70*.

3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some*   c) ☐ None · of the:

       1. ☒ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

       3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

       1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☐ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____.

EXAMINER'S AMENDMENT

1.   An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview

with Leonard Diana on March 31, 2006.

The application has been amended as follows:

Claim 1 (currently amended): A device search system comprising a server unit

and a client unit,

wherein said client unit comprises:

first request means for requesting said server unit to execute a first search

in accordance with first search attributes in order to search for a desired device on the

network, the first search attributes including a type attribute indicating a device type and

a function attribute indicating a device function of the desired device;

recognition means for recognizing whether result information obtained

from the first search executed by said server unit shows a presence or absence of at

least one device;

second request means for requesting said server unit to execute a second

search in accordance with a second search attribute in order to search for a desired

device on the network, in response to a recognition by the recognition means that the

result information shows the absence of at least one device, the second search attribute

being the type attribute extracted from the first search attributes; and

output means for outputting, for each device searched in the second

search, information indicating a device type corresponding to the second search

attribute and information indicating to what extent the device meets the function attribute

not extracted for the second search attribute from the first search attributes.

Claim 10 (currently amended): An apparatus for searching a database, which

holds information for identifying a device on a network and information of various

attributes of the device, said apparatus comprising:

first request means for requesting said server unit to execute a first search

in accordance with first search attributes in order to search for a desired device on the

network, the first search attributes including a type attribute indicating a device type and

a function attribute indicating a device function of the desired device;

recognition means for recognizing whether result information obtained

from the first search executed by said server unit shows a presence or absence of at

least one device;

second request means for requesting said server unit to execute a second

search in accordance with a second search attribute in order to search for a desired

device on the network, in response to a recognition by the recognition means that the

result information shows the absence of at least one device, the second search attribute

being the type attribute extracted from the first search attributes; and

output means for outputting, for each device searched in the second

search, information indicating a device type corresponding to the second search

attribute and information indicating to what extent the device meets the function attribute

not extracted for the second search attribute from the first search attributes.

Claim 15 (currently amended): An apparatus for searching a database in

accordance with a query received from a client unit, said apparatus comprising:

execution means for executing a search in accordance with a search request

from the client unit;

database control means for controlling a database in which information for

identifying a device on a network and information for various attributes of the device are

registered, and for controlling execution of the search for the device in accordance with

the search request from the client unit;

reception means for receiving from the client unit a first search for a device which

satisfies first search attributes on the network, the first search attributes including a type

attribute indicating a device type and a function attribute indicating a device function of

the desired device;

recognition means for recognizing whether result information obtained from the

first search shows a presence or absence of at least one device;

obtaining means for obtaining a second search attribute for use in a second

search from the first search attributes for the first search, the second search attribute

being the type attribute extracted from the first search attributes;

search means for executing the second search for a device satisfying the second

search attribute obtained by said obtaining means, in response to a recognition by said

recognition means that the search result information shows the absence of at least one

device; and

output means for outputting, for each device searched in the second search,

information indicating a device type corresponding to the second search attribute and

information indicating to what extent the device meets the function attribute not

extracted for the second search attribute from the first search attributes.

Claim 19 (currently amended): A method for searching a database, which holds

information for identifying a device on a network and information of various attributes of

the device, said method comprising:

a first request step of requesting a server unit to execute a first search in

accordance with first search attributes in order to search for a desired device on a

network, the first search attributes including a type attribute indicating a device type and

a function attribute indicating a device function of the desired device;

a recognition step of recognizing whether result information obtained from

the first search executed by said server unit shows a presence or absence of at least

one device;

a second request step of requesting the server unit to execute a second

search in accordance with a second search attribute in order to search for a desired

device on the network, in response to a recognition by said recognition means that the

result information shows the absence of at least one device, the second search attribute

being the type attribute extracted from the first search attributes; and

an output step of outputting, for each device searched in the second

search, information indicating a device type corresponding to the second search

attribute and information indicating to what extent the device meets the function attribute

not extracted for the second search attribute from the first search attributes.

Claim 24 (currently amended): A method for searching a database in accordance

with a query received from a client unit, said method comprising:

an execution step of executing a search in accordance with a search request

from the client unit;

a database control step of controlling a database in which information for

identifying a device on a network and information for various attributes of the device are

registered, and for controlling execution of the search for the device in accordance with

the search request from the client unit;

a reception step of receiving from the client unit a first search for a device which

satisfies first search attributes on the network, the first search attributes including a type

attribute indicating a device type and a function attribute indicating a device function of

the desired device;

a recognition step of recognizing whether result information obtained from the

first search shows a presence or absence of at least one device;

an obtaining step of obtaining a second search attribute for use in a second

search from the first search attributes for the first search, the second search attribute

being the type attribute extracted from the first search attributes;.

a search step of executing the second search for a device satisfying the second

search attribute obtained in said obtaining step, in response to a recognition in said

recognition step that the search result information shows the absence of at least one

device; and

an output step of outputting, for each device searched in the second search,

information indicating a device type corresponding to the second search attribute and

information indicating to what extent the device meets the function attribute not

extracted for the second-search-attribute from the first search attributes.

Claim 28 (currently amended): A storage medium storing a computer program to

be executed by a computer to implement a method for searching a database, which

holds information for identifying a device on a network and information of various

attributes of the device, wherein the method comprises:

a first request step of requesting a server unit to execute a first search in

accordance with first search attributes in order to search for a desired device on a

network, the first search attributes including a type attribute indicating a device type and

a function attribute indicating a device function of the desired device;

a recognition step of recognizing whether result information obtained from the first search executed by said server unit shows a presence or absence of at least one device;

a second request step of requesting the server unit to execute a second search in accordance with a second search attribute in order to search for a desired device on the network, in response to a recognition by said recognition means that the result information shows the absence of at least one device, the second search attribute being the type attribute extracted from the first search attributes; and

an output step of outputting, for each device searched in the second search, information indicating a device type corresponding to the second search attribute and information indicating to what extent the device meets the function attribute not extracted for the second search attribute from the first search attributes.

Claim 33 (currently amended): A storage medium storing a computer program to be executed by a computer to implement a method for searching a database in accordance with a query received from a client unit, wherein the method comprises:

an execution step of executing a search in accordance with a search request from the client unit;

a database control step of controlling a database in which information for identifying a device on a network and information for various attributes of the device are registered, and for controlling execution of the search for the device in accordance with the search request from the client unit;

a reception step of receiving from the client unit a first search for a device which

satisfies first search attributes on the network, the first search attributes including a type

attribute indicating a device type and a function attribute indicating a device function of

the desired device;

a recognition step of recognizing whether result information obtained from the

first search shows a presence or absence of at least one device;

an obtaining step of obtaining a second search attribute for use in a second

search from the first search attributes for the first search, the second search attribute

being the type attribute extracted from the first search attributes;

a search step of executing the second search for a device satisfying the second

search attribute obtained in said obtaining step, in response to a recognition in said

recognition step that the search result information shows the absence of at least one

device; and

an output step of outputting, for each device searched in the second search,

information indicating a device type corresponding to the second search attribute and

information indicating to what extent the device meets the function attribute not

extracted for the second search attribute from the first search attributes.

Claim 44 (currently amended): A computer program product embodying a

computer program for implementing a method for searching a database, which holds

information for identifying a device on a network and information of various attributes of

the device, wherein the method comprises:

a first request step of requesting a server unit to execute a first search in

accordance with first search attributes in order to search for a desired device on a

network, the first search attributes including a type attribute indicating a device type and

a function attribute indicating a device function of the desired device;

a recognition step of recognizing whether result information obtained from

the first search executed by said server unit shows a presence or absence of at least

one device;

a second request step of requesting the server unit to execute a second

search in accordance with a second search attribute in order to search for a desired

device on the network, in response to a recognition by said recognition means that the

result information shows the absence of at least one device, the second search attribute

being the type attribute extracted from the first search attributes; and

an output step of outputting, for each device searched in the second

search, information indicating a device type corresponding to the second search

attribute and information indicating to what extent the device meets the function attribute

not extracted for the second search attribute from the first search attributes.

Claim 50 (currently amended): A computer program product embodying a

computer program for implementing a method for searching a database in accordance

with a query received from a client unit, wherein the method comprises:

an execution step of executing a search in accordance with a search request

from the client unit;

a database control step of controlling a database in which information for

identifying a device on a network and information for various attributes of the device are

registered, and for controlling execution of the search for the device in accordance with

the search request from the client unit;

a reception step of receiving from the client unit a first search for a device which

satisfies first search attributes on the network, the first search attributes including a type

attribute indicating a device type and a function attribute indicating a device function <u>of</u>

<u>the desired device</u>;

a recognition step of recognizing whether result information obtained from the

first search shows a presence or absence of at least one device;

an obtaining step of obtaining a second search attribute for use in a second

search from the first search attributes for the first search, the second search attribute

being the type attribute extracted from the first search attributes;

a search step of executing the second search for a device satisfying the second

search attribute obtained in said obtaining step, in response to a recognition in said

recognition step that the search result information shows the absence of at least one

device; and

an output step of outputting, for each device searched in the second search,

information indicating a device type corresponding to the second search attribute and

information indicating to what extent the device meets the function attribute not

extracted for the second search attribute from the first search attributes.

Claim 55 (currently amended): A device search system comprising a server unit

and a client unit,

wherein said client unit comprises:

a first request unit adapted to request said server unit to execute a first

search in accordance with first search attributes in order to search for a desired device

on the network, the first search attributes including a type attribute indicating a device

type and a function attribute indicating a device function of the desired device;

a recognition unit adapted to recognize whether result information

obtained from the first search executed by said server unit shows a presence or

absence of at least one device;

a second request unit adapted to request said server unit to execute a

second search in accordance with a second search attribute in order to search for a

desired device on the network, in response to a recognition by the recognition means

that the result information shows the absence of at least one device, the second search

attribute being the type attribute extracted from the first search attributes; and

an output unit adapted to output, for each device searched in the second

search, information indicating a device type corresponding to the second search

attribute and information indicating to what extent the device meets the function attribute

not extracted for the second search attribute from the first search attributes.

Claim 56 (currently amended): An apparatus for searching a database, which

holds information for identifying a device on a network and information of various

attributes of the device, said apparatus comprising:

a first request unit adapted to request said server unit to execute a first

search in accordance with first search attributes in order to search for a desired device

on the network, the first search attributes including a type attribute indicating a device

type and a function attribute indicating a device function of the desired device;

a recognition unit adapted to recognize whether result information

obtained from the first search executed by said server unit shows a presence or

absence of at least one device;

a second request unit adapted to request said server unit to execute a

second search in accordance with a second search attribute in order to search for a

desired device on the network, in response to a recognition by the recognition means

that the result information shows the absence of at least one device, the second search

attribute being the type attribute extracted from the first search attributes; and

an output unit adapted to output, for each device searched in the second

search, information indicating a device type corresponding to the second search

attribute and information indicating to what extent the device meets the function attribute

not extracted for the second search attribute from the first search attributes.

Claim 57 (currently amended): An apparatus for searching a database in

accordance with a query received from a client unit, said apparatus comprising:

an execution unit adapted to execute a search in accordance with a search

request from the client unit;

a database control unit adapted to control a database in which information for

identifying a device on a network and information for various attributes of the device are

registered, and for controlling execution of the search for the device in accordance with

the search request from the client unit;

a reception unit adapted to receive from the client unit a first search for a device

which satisfies first search attributes on the network, the first search attributes including

a type attribute indicating a device type and a function attribute indicating a device

function of the desired device;

a recognition unit adapted to recognize whether result information obtained from

the first search shows a presence or absence of at least one device;

an obtaining unit adapted to obtain a second search attribute for use in a second

search from the first search attributes for the first search, the second search attribute

being the type attribute extracted from the first search attributes;

a search unit adapted to execute the second search for a device satisfying the

second search attribute obtained by said obtaining means, in response to a recognition

by said recognition means that the search result information shows the absence of at

least one device; and

an output unit adapted to output, for each device searched in the second search,

information indicating a device type corresponding to the second search attribute and

information indicating to what extent the device meets the function attribute not

extracted for the second search attribute from the first search attributes.

Claim 61 (currently amended): A device search apparatus comprising:

a first display unit, adapted to display result information obtained from a device

search executed under a first search condition in which first search attributes are

designated, the first search attributes including a type attribute indicating a device type

and a function attribute indicating a device function of the desired device;

an extraction unit, adapted to extract the type attribute from the first search

attributes designated in the first search condition for use as a second search condition;

a request unit, adapted to request a device search under the second search

condition; and

a second display unit, adapted to display, for each device completely meeting the

second search condition, information indicating a device type corresponding to the type

attribute used as the second search condition and information indicating to what extent

the device meets the function attribute not extracted for use as the second search

attribute from the first search attributes.

Claim 65 (currently amended): A device search method comprising:

a first display step of displaying result information obtained from a device search

executed under a first search condition in which first search attributes are designated,

the first search attributes including a type attribute indicating a device type and a

function attribute indicating a device function of the desired device;

an extraction step of extracting the type attribute from the first search attributes

designated in the first search condition for use as a second search condition;

a request step of requesting a device search under the second search condition;

and

a second display step of displaying, for each device completely meeting the

second search condition, information indicating a device type corresponding to the type

attribute used as the second search condition and information indicating to what extent

the device meets the function attribute not extracted for use as the second search

attribute from the first search attributes.

Claim 69 (currently amended): A computer-readable storage medium storing a

program for implementing a device search method, wherein the method comprises:

a first display step of displaying result information obtained from a device search

executed under a first search condition in which first search attributes are designated,

the first search attributes including a type attribute indicating a device type and a

function attribute indicating a device function of the desired device;

an extraction step of extracting the type attribute from the first search attributes

designated in the first search condition for use as a second search condition;

a request step of requesting a device search under the second search condition;

and

a second display step of displaying, for each device completely meeting the second search condition, information indicating a device type corresponding to the type attribute used as the second search condition and information indicating to what extent the device meets the function attribute not extracted for use as the second search attribute from the first search attributes.

Claim 70 (currently amended): A computer program product embodying a program for implementing a device search method, wherein the method comprises:

a first display step of displaying result information obtained from a device search executed under a first search condition in which first search attributes are designated, the first search attributes including a type attribute indicating a device type and a function attribute indicating a device function of the desired device;

an extraction step of extracting the type attribute from the first search attributes designated in the first search condition for use as a second search condition;

a request step of requesting a device search under the second search condition; and

a second display step of displaying, for each device completely meeting the second search condition, information indicating a device type corresponding to the type attribute used as the second search condition and information indicating to what extent the device meets the function attribute not extracted for use as the second search attribute from the first search attributes.
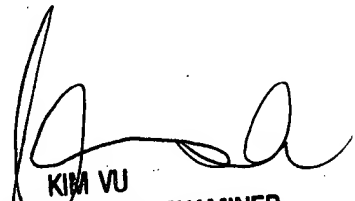
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom Gyorfi whose telephone number is (571) 272-3849. The examiner can normally be reached on 8:30am - 5:00pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TAG
4/3/06

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